

What is claimed is:

1. A film-laminated metal sheet for container comprising resin films each containing polyester as a main component on both surfaces, wherein a polarity force component γ_s^h of an surface free energy of a surface of the resin film that is to be positioned on an inner surface side of the container after formation of the container and that is to be in contact with a content is 4×10^{-3} N/m or less.

2. A film-laminated metal sheet for container comprising resin films each containing polyester as a main component on both surfaces, wherein a polarity force component γ_s^h of an surface free energy of a surface of the resin film that is to be positioned on an inner surface side of the container after formation of the container and that is to be in contact with a content is 2×10^{-3} N/m or less.

3. The film-laminated metal sheet for container according to claim 1, wherein the resin film to be positioned on the inner surface side of the container after formation of the container is blended with 5% to 20% in a ratio by mass of an olefin resin with respect to the resin film.

4. The film-laminated metal sheet for container according to claim 1, wherein the resin film to be

positioned on the inner surface side of the container contains 0.1% to 2% in a ratio by mass of a wax component with respect to the resin film.

5. The film-laminated metal sheet for container according to claim 2, wherein the resin film to be positioned on the inner surface side of the container after formation of the container is blended with 10% to 20% in a ratio by mass of an olefin resin with respect to the resin film.

6. The film-laminated metal sheet for container according to claim 2, wherein the resin film to be positioned on the inner surface side of the container further contains polyester as a main component and that contains 0.80% to 2.0% in a ratio by mass of a wax component with respect to the resin film.

7. The film-laminated metal sheet for container according to claim 4, wherein the wax component is carnauba wax or ester stearate.

8. The film-laminated metal sheet for container according to claim 1, wherein the resin film containing polyester as a main component is a biaxially oriented polyester film characterized in that a relaxation time $T_{1\rho}$ of a benzene ring carbon at a 1,4 coordinate in a structure

analysis according to a high solid resolution NMR is 150 msec or longer.

9. The film-laminated metal sheet for container according to claim 1, wherein the resin film containing polyester as a main component is a biaxially oriented polyester film characterized in that a melting point is in a range of 240°C to 300°C, the content of a terminal carboxyl group is in a range of 10 to 50 equivalent/ton, and an isophthalic acid component is not substantially contained as an acid component.

10. The film-laminated metal sheet for container according to claim 1, wherein the resin film containing polyester as a main component is a biaxially oriented polyester film characterized in that an amorphous Young's modulus is in a range of 120 to 220 kg/mm².

11. The film-laminated metal sheet for container according to claim 1, wherein 95 mol % or more of polyester units constituting the resin film containing polyester as a main component are ethylene terephthalate units.

12. The film-laminated metal sheet for container according to claim 1, wherein the resin film containing polyester as a main component is a biaxially oriented polyester film characterized in that 93 mol % or more of the

polyester units constituting the resin film are ethylene terephthalate units, and a crystal size χ in a (100) plane obtained through an X-ray diffraction measurement is 6.0 nm or smaller.

13. The film-laminated metal sheet for container according to claim 1, wherein the resin film containing polyester as a main component is a biaxially oriented polyester film characterized in that 93 mol % or more of the polyester units constituting the resin film are ethylene terephthalate units, and a crystal orientation parameter R obtained through an X-ray diffraction measurement is 20×10^{-2} or more.

14. The film-laminated metal sheet for container according to claim 1, wherein an region where the birefringence of a laminate layer to be positioned on the inner surface side of the container after formation of the container is 0.02 or less is smaller than 5 μm from a contact interface with the metal sheet in the thickness direction.

15. A film-laminated metal sheet for container comprising resin films each containing polyester as a main component in both surfaces, wherein a resin film to be positioned on the inner surface side of the container after formation of the container comprises at least two layers, a

resin film to be positioned on the outer surface side of the container after formation of the container comprises at least one layer; and a polarity force component γ_s^h of a surface-free energy of a surface where an uppermost-layer resin film, which is one of the at least two resin layers and which is to be positioned on the outer surface side of the container, is to be in contact with a content is 4×10^{-3} N/m or less.

16. A film-laminated metal sheet for container comprising resin films each containing polyester as a main component in both surfaces, wherein a resin film to be positioned on the inner surface side of the container after formation of the container comprises at least two resin layers, a resin film to be positioned on the outer surface side of the container after formation of the container comprises at least one resin layer; and a polarity force component γ_s^h of a surface-free energy of a surface where an uppermost-layer resin film, which is one of the at least two resin layers and which is to be positioned on the outer surface side of the container, is to be in contact with a content is 2×10^{-3} N/m or less.

17. The film-laminated metal sheet for container according to claim 15, wherein the uppermost-layer resin film is blended with 5% to 20% in a ratio by mass of an olefin resin with respect to the uppermost-layer resin film.

18. The film-laminated metal sheet for container according to claim 15, wherein the uppermost-layer resin film further contains 0.1% to 2% in a ratio by mass of a wax component with respect to the resin film.

19. The film-laminated metal sheet for container according to claim 16, wherein the uppermost-layer resin film is blended with 10% to 20% in a ratio by mass of an olefin resin with respect to the uppermost-layer resin film.

20. The film-laminated metal sheet for container according to claim 16, wherein the uppermost-layer resin film further contains 0.8% to 2% in a ratio by mass of a wax component with respect to the uppermost-layer resin film.

21. The film-laminated metal sheet for container according to claim 18, wherein the wax component is carnauba wax or ester stearate.

22. The film-laminated metal sheet for container according to claim 1, wherein the resin film to be positioned on the inner surface side of the container after formation of the container contains a color pigment or a color dye.

23. The film-laminated metal sheet for container

according to claim 1, wherein the resin film to be positioned on the outer surface side of the container after formation of the container contains a color pigment or a color dye.

24. The film-laminated metal sheet for container according to claim 15, wherein at least one of the at least two resin films to be positioned on the inner surface side of the container after formation of the container contains a color pigment or a color dye.

25. The film-laminated metal sheet for container according to claim 15, wherein at least one of the at least two resin films to be positioned on the outer surface side of the container after formation of the container contains a color pigment or a color dye.

26. The film-laminated metal sheet for container according to claim 22, wherein the color pigment includes an aromatic diamine base organic pigment.

27. The film-laminated metal sheet for container according to claim 22, wherein the color pigment includes a benzimidazolone based organic pigment.

28. The film-laminated metal sheet for container according to claim 22, wherein the color pigment includes

1:2 complex chromate and phthalocyanine.

29. The film-laminated metal sheet for container according to claim 22, wherein the color pigment is composed by blending includes 1:2 complex chromate and phthalocyanine a mass ratio of 10 : 1.